Amendment to the Claims

Please amend claims 1, 16, 21, 26, 27 and 33 as indicated below.

1. (Currently Amended) A method for blending images into a single image, comprising:

selecting two images having overlapping content;

dividing the two images into strips along a common plane wherein each strip is a long and narrow piece of the image;

selecting a strip of uniform width in each of the two images where the two images overlap each other;

determining differences between the overlapping two strips;

determining a line through the overlapping strips where the differences between the overlapping strips are minimized; and

blending the two images together along the minimized line to create a single image.

2. (Original) The method according to claim 1, wherein the selected images belong to a set of two or more images comprising a scene.

3. (Original) The method according to claim 1, wherein the selected images differ from each other based on at least recording time, camera location, camera setting, lighting, shadows, and/or background.

4. (Original) The method according to claim 1, wherein each selected image is divided into at least one strip.

5. (Original) The method according to claim 1, wherein the selected images are divided along a common plane.

6. (Original) The method according to claim 1, wherein the selected images are divided into strips along one of a vertical plane or a horizontal plane.

7. (Original) The method according to claim 1, wherein the two overlapping strips are selected according to a mean squared difference algorithm such that the sum of the mean squared difference values between the two selected strips is minimized.

8. (Original) The method according to claim 1, including:

cutting the selected images along the minimized line; and

joining the cut images together to create the single image of the scene.

9. (Original) The method according to claim 1, including:

calculating a squared color difference value for each pixel pair between the overlapping strips;

converting the squared color difference values into a gray scale image of the overlapping strips, wherein the brightest pixels in the gray scale image correspond to the pixels of greatest difference between the two overlapping strips;

sorting the gray scale pixels from largest to smallest difference value;

for each sorted gray scale pixel, mapping the gray scale pixel to one of two regions within the overlapping strip according to the adjacency of the gray scale pixel to the one of the two regions;

determining a cut line between the two regions;

cutting each selected image along the cut line within the overlapping strip of each selected image; and

combining the two cut selected images along the cut line to form the single image.

10. (Original) The method according to claim 9, wherein the cut line is determined between a first region and a second region to which the pixels have been mapped.

11. (Original) The method according to claim 9, wherein the cut line corresponds to

the line of best match between the overlapping strips.

12. (Original) The method according to claim 9, wherein at least one of the cut

images is warped along the cut line to improve the fit between the two cut images along the cut line.

13. (Original) The method according to claim 12, wherein a Gaussian function is used to warp the at least one cut image.

14. (Original) The method according to claim 1, wherein the blending of images is performed iteratively, with the blended single image being utilized as one of the selected two images to be blended.

15. (Original) The method according to claim 14, wherein the method of blending is performed iteratively until all images comprising the scene have been blended into a final single image of the scene.

16. (Currently Amended) A method for blending two images into a single image, comprising:

dividing two images into strips along a common plane wherein each strip is a long and narrow piece of the image;

selecting a strip of uniform width in each image where the two images overlap;

determining a line through the overlapping strips where differences between the overlapping strips are minimized;

blending the two images along the determined minimized line to create a single image; and

warping the single image to minimize blurring along the blending line.

17. (Original) The method according to claim 16, wherein the minimized line is determined by calculating mean squared difference values for pairs of pixels between the two overlapping image strips.

18. (Original) The method according to claim 16, wherein at least one of the images

is warped where the differences between the selected strips along the blending line exceed a predetermined threshold.

19. (Original) The method according to claim 16, wherein the single image is warped by application of a Gaussian function.

20. (Original) The method according to claim 19, where the Gaussian function is applied iteratively along a plurality of planes and with a plurality of magnitudes of warp to determine the best fit between the images.

21. (Currently Amended) A computer-based system for blending images into a single image, comprising:

a computer configured to:

divide two images having overlapping content into strips along a common plane wherein each strip is a long and narrow piece of the image;

select a strip of uniform width in each of the two images where the two images overlap each other;

determine pixel difference values between the overlapping two strips;

determine a line through the overlapping strips where the sum of the pixel difference values between the overlapping strips are minimized; and

blend the two images together along the minimized line to create a single image.

22. (Original) The system according to claim 21, wherein the two overlapping strips are selected according to a mean squared difference algorithm such that the sum of the mean squared difference values between the two strips is minimized.

23. (Original) The system according to claim 21, wherein the computer is configured to:

calculate a squared color difference value for each pixel pair between

the overlapping strips;

convert the squared color difference values into a gray scale image of the overlapping strips, wherein the brightest pixels in the gray scale image correspond to the pixels of greatest difference between the two overlapping strips;

sort the gray scale pixels from largest to smallest difference value;

for each sorted gray scale pixel, map the gray scale pixel to one of two regions within the overlapping strip according to the adjacency of the sort gray scale pixel to the one of the two regions;

determine a cut line between the two regions;

cut each image along the cut line of the overlapping strip of each image; and

combine the two cut images along the cut line to form the single image.

24. (Original) The system according to claim 23, wherein the cut line is determined by calculating mean squared difference values for pairs of pixels between the two selected image strips.

25. (Original) The system according to claim 23, wherein at least one of the images is warped where the differences between the selected strips along the cut line exceed a predetermined threshold.

26. (Currently Amended) A system for blending images into a single image, comprising:

means for dividing two images having overlapping content into strips <u>along a common plane</u> in at least one region of overlap <u>wherein each strip is a long and narrow piece of the image</u>;

means for calculating difference values between the pixels of the two images in [[the]] <u>corresponding strips of uniform length in the</u> at least one region of overlap;

means for determining a cut line through the two images where the difference values are minimized; and

means for blending the two images along the cut line to create a blended single image.

27. (Currently Amended) A system for blending images into a single image, comprising:

a first computing module dividing two images having overlapping content into strips along a common plane in at least one region of overlap wherein each strip is a long and narrow piece of the image;

a second computing module calculating difference values between the pixels of the two images in [[the]] corresponding strips of uniform width in the at least one region of overlap;

a third computing module determining a cut line through the two images where the difference values are minimized; and

a fourth computing module blending the two images along the cut line to create a blended single image.

28. (Original) The system according to claim 27, including selecting two overlapping strips according to a mean squared difference algorithm such that the sum of the mean squared difference values between the two strips is minimized.

29. (Original) The system according to claim 27, including:

a fifth computing module cutting the two images along the cut line; and

a sixth computing module joining the cut images together to create the single image.

30. (Original) The system according to claim 29, wherein at least one of the cut images is warped along the cut line to improve the fit between the two images along the cut line.

31. (Original) The system according to claim 27, wherein the blending of images is performed iteratively, with the blended single image being utilized as one of the two images to be blended.

32. (Original) The system according to claim 27, wherein the system is included in one of a video camera or a digital camera.

33. (Currently Amended) A computer readable medium encoded with software for blending images into a single image, wherein the software is provided for:

selecting two images having overlapping content;

dividing the two images into strips along a common plane where the two images overlap each other;

selecting a strip in each of the two images;

determining the differences between the overlapping two strips;

determining a line through the overlapping strips where the differences between the overlapping strips are minimized; and

blending the two images together along the minimized line to create a single image.

34. (Original) The software according to claim 33, wherein the selected images differ from each other based on at least recording time, camera location, camera setting, lighting, shadows, and/or background.

35. (Original) The software according to claim 33, wherein the two overlapping strips are selected according to a mean squared difference algorithm such that the sum of the mean squared difference values between the two strips is minimized.

36. (Original) The software according to claim 33, wherein the software is provided for:

calculating a difference value for each pixel pair between the two overlapping strips;

converting the calculated difference values into a gray scale image of the overlapping strips, wherein the brightest pixels in the gray scale image correspond to the pixels of greatest difference between the two overlapping strips;

sorting the gray scale pixels from largest to smallest difference value;

for each sorted gray scale pixel, mapping the gray scale pixel to a first region or a second region within the overlapping strip according to the adjacency of the gray scale pixel to the first region or the second region;

determining a cut line within the overlapping strips between the first mapped region and the second mapped region;

cutting each selected image along the cut line of the overlapping strip of each selected image; and

combining the two cut selected images along the cut line to form the single image.